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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/266,863 | 03/12/1999 | HIROSHI TSUDA | 826.1540/JDH | 6336 |

21171 7590 11/19/2003

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

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|-------------------------|--------------|
| EXAMINER | |
| EDOUARD, PATRICK NESTOR | |
| ART UNIT | PAPER NUMBER |
| 2654 | 4 |

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|---|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/266,863 | Applicant(s) TSUDA | |
| | Examiner Patrick N.Edouard | Art Unit 2654 | |
| -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -- | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. | | | |
| - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | |
| Status | | | |
| 1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Aug 25, 2003</u> | | | |
| 2a) <input checked="" type="checkbox"/> This action is FINAL. 2b) <input type="checkbox"/> This action is non-final. | | | |
| 3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213. | | | |
| Disposition of Claims | | | |
| 4) <input checked="" type="checkbox"/> Claim(s) <u>1-18</u> is/are pending in the application. | | | |
| 4a) Of the above, claim(s) _____ is/are withdrawn from consideration. | | | |
| 5) <input type="checkbox"/> Claim(s) _____ is/are allowed. | | | |
| 6) <input checked="" type="checkbox"/> Claim(s) <u>1-18</u> is/are rejected. | | | |
| 7) <input type="checkbox"/> Claim(s) _____ is/are objected to. | | | |
| 8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement. | | | |
| Application Papers | | | |
| 9) <input type="checkbox"/> The specification is objected to by the Examiner. | | | |
| 10) <input type="checkbox"/> The drawing(s) filed on _____ is/are a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | |
| 11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action. | | | |
| 12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner. | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | |
| 13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). | | | |
| *See the attached detailed Office action for a list of the certified copies not received. | | | |
| 14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received. | | | |
| 15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | |
| Attachment(s) | | | |
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ | |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) | |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | | 6) <input type="checkbox"/> Other: _____ | |

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DETAILED ACTION

1. This Office Action is in response to communication filed 8/25/03 (paper #5) . Claims 1-17 and new claim 18 are pending.

Response to Arguments

2. Applicant's arguments filed 8/25/03 have been fully considered but they are not persuasive.
Because of the following:

Claim Rejections - 35 USC § 112

3. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation “the hierarchical and associative relations representing relations between a first keyword included in a first hierarchical relation and a second keyword included in a second hierarchical relation” is not described in the specification as to enable one of ordinary skill on how to make or use it. Indeed, the specification on pages 11-16 does not describe this limitation. Also, as per claim 18, the limitation “extracting relations between the previously assigned keywords... and the equivalent list” is not described in the specification. The Applicant is advised to point out where these limitations can be found.

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4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-17, The limitation “the hierarchical and associative relations representing relations between a first keyword included in a first hierarchical relation and a second keyword included in a second hierarchical relation” is vague and indefinite. It is also unclear as to how the hierarchical and associative relations can represent the same relations since they are different. Also, the limitation “the extracted relation as a link between the first and second keywords” is vague and indefinite. It is unclear as to which extracted relation (i.e the hierarchical relation or the associative relation)is used as a link between the first and the second keywords.

As per claim 18, the limitation “ extracting relations the previously...the equivalent keyword list” is unclear since his limitation does not set the metes and bounds of the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (5,761,498) *in view of Wical et al (6,061,675)*

As per claims 1 and 15-17, Hattori teaches a document organizing apparatus for organizing a group of documents based on keywords comprising:

relations extracting unit to extract one of a hierarchical relation and an associative relation, the hierarchical and associative relations representing relations between a first keyword included in a first hierarchical relations and a second keyword included in a second hierarchical relation "(figure 3, col. Col. 11, lines 30-60, the conceptual hierarchy as the first hierarchical relation and the associative network as the second hierarchical relation); and

"A Generating unit to generate directory information for accessing the group of documents "(suggested by col. 14, lines 31-48, col. 20, lines 11-52).

It is noted that Hattori teaches the claimed invention but does not explicitly teach a generating unit to generate directory information for accessing the group of documents by using the extracted relation as a link between the first and second keyword. However, this feature is well known in the art as evidenced by Wical who teaches in figures 4, 5 and 7, col. 49 line 60 to col. 50 line 16, col. 51, line 18-60 the use of cross referencing of cross linking ontologies to generate a very detailed hierarchical classification and a static ontology comprising a plurality of concepts that can be expanded into the dynamic level to generate a dynamic classification system that includes a knowledge catalog processor. Therefore, one of ordinary skill in the art at the time

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the invention was made would have it obvious to incorporate into the retrieval system of Hattori a dynamic classification as taught by Wical because it would provide a flexible system capable of classifying or organizing document by cross referencing the concepts in the ontologies that permits generation of a true knowledge map (see col. 50, lines 16-53).

“outputting means for outputting the directory information”(his knowledge catalog).

As per claim 2, Hattori teaches wherein said relation extracting means includes: rule extracting means for extracting an association rule containing a pair of keywords from the given keywords” (col. 11, lines 30-60 and col. 14, line 30 to col. 15, line 45); and rule evaluating means for evaluating the association and assigning one of the hierarchical ...to the pair of keywords”(col. 17, line 64 to col. 19, line 66).

As per claims 11-13, Hattori teaches means for inputting a given hierarchical relation between keywords” (col. 19, lines 27-66); and

“ wherein generating means generates directory information using the hierarchical relation” (see Wical Knowledge catalog).

As per claim 10, Hattori teaches means for deleting a keyword based on an unnecessary word list (col. 17, lines 25-41).

As per claim 14, Hattori teaches keyword searching means ; document searching means and wherein a user obtains document information using said keyword searching means and said document searching means (abstract, figure 1).

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (5,761,496) in view of Wical et al (6,061,675) as applied to claims 2 above and further in view Register et al (5,371,807)

As per claims 3 and 4, It is noted that the combination of Hattori with Wical teaches the claimed invention but does not explicitly teach wherein said rule extracting means extracts a pair of keywords with a high occurrence frequency as the association rule" and "wherein said rule evaluating means assigns a relation of the extracted pair of keywords thereto based on the occurrence frequency . However, these features are well known in the art as evidenced by Register et al who teach a text classification system comprising an intelligent inferencer module 34 that contains all the information about the extracted keywords included his association and his frequency. Therefore, one having ordinary skill in the art at the time the invention was made would have found it obvious to incorporate into the combination of Hattori with Wical the

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intelligent inferencer as taught by Register because it would provide a text classification with improved accuracy by allowing multiple facts to be inferred from single keyword classes.

As per claims 5 and 6, Register et al teach wherein said relation extracting means divides one of the given keywords into character sub-strings and extracts an inclusion relation between the given keywords and the character sub-string as the hierarchical relation (col. 5, lines 12-36).

As per claim 9, Register et al teach means for adding an equivalent relation between keywords based on a synonym... (col. 11, lines 1-20).

9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori (5,761,496) in view of Wical et al (6,061,675) and further in view of Agrawal et al (6,233,575).

It is noted that the combination of Hattori with Wical teaches the claimed invention but does not explicitly teach wherein said generating means generates a hypertext index having at least one of a path from a top category to a directory. However, Agrawal et al teach a system for organizing, classifying and indexing information by topics such as text and hypertext documents. Therefore, one having ordinary skill in the art at the time the invention was made would have it obvious to generate an hypertext index as taught by Agrawal in system of Hattori with Wical because it would provide efficient and reliable of a database of information such as hypertext documents into a topic hierarchy with the purpose of facilitating , searching and filtering of documents as per the user's information.

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Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

11. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Register et al (5,371,807).

Register et al teach a method for generating relations between keywords extracted from documents comprising:

“Storing documents with previously assigned keywords” (figure 1, his lexicon of keywords, phrases and regular expressions 52);

“ obtaining an initial keyword hierarchy and an equivalent keyword list” (his keyword class hierarchy and associated facts”; and

“ extracting relations between the previously assigned keywords... and the equivalent keyword list” (col. 5, lines 11-37, col. 8, lines 16-46).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231 or faxed to:

(703) 308-9051, (for formal communications intended for entry) Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or

"DRAFT")

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick N. Edouard whose telephone number is (703) 308-6725. The examiner can normally be reached on Tuesday-Friday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached on (703) 305-4379. The facsimile phone number for this Art Unit is (703) 305-9508. Alternatively, facsimile messages may be sent directly to (703) 305-9644 where they will be stored in the examiner's voice mailbox (telling the examiner that a fax was received) and be automatically printed (i.e. - no delay by the examiner).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Patrick N. Edouard

November 13, 2003



PATRICK N. EDOUARD
PATENT EXAMINER